

## **Section II (Remarks)**

### **A. Summary of Amendment to the Claims**

By the present Amendment, claims 1 and 4 have been amended. No new matter within the meaning of 35 U.S.C. §132(a) has been introduced by the foregoing amendments.

The amendments made herein are fully consistent with and supported by the originally-filed disclosure of this application. Specifically, the claims have been amended to recite particular amino acid and *SGR* gene sequences. Support for the sequences is provided in the specification at page 7, lines 4-11 and Figures 2-22 and in the Sequence Listing, as filed.

In view of the finality of the October 26, 2010 Office Action and to ensure substantive consideration of this response, a Request for Continued Examination is concurrently submitted herewith, together with payment of the appertaining RCE fees (see *infra*, "Conclusion").

### **B. Election/Restriction**

Applicants affirm that in response to the Restriction Requirement mailed March 23, 2009, SEQ ID NO: 1 was elected as a single nucleic acid sequence and SEQ ID NO: 30 as a single amino acid sequence, in accordance with the examiner's restriction. However, it is additionally noted that all of SEQ ID NOs: 1 to 21 and 28 possess a technical relationship in that all are related in that they encode proteins that participate in chlorophyll catabolism during leaf senescence and all are related in effecting leaf yellowing. Similarly, all of SEQ ID NOs: 30 to 50 and 57 possess a technical relationship in that they all are polypeptides that participate in chlorophyll catabolism during leaf senescence and all are related in effecting leaf yellowing. To the extent that election was required among the nucleic acid sequences and among the polypeptide sequences, Applicants again assert that such should properly have been a species election.

Pending claims 1 and 4 each contain Markush language, as emphasized below:

1. A *SGR* gene encoding a polypeptide comprising the amino acid sequence **selected from the group consisting of SEQ ID NOs: 30 to 50 and 57.**
4. The *SGR* gene according to claim 1, wherein the *SGR* gene comprises the DNA sequence **selected from the group consisting of SEQ ID NOs: 1 to 21 and 28.**

It is understood that “[a] Markush-type claim may include independent and distinct inventions.”

However:

“[i]n applications containing a Markush-type claim that encompasses at least two independent or distinct inventions, the examiner may require a provisional election of a single species prior to examination on the merits...Following election, the Markush-type claim will be examined fully with respect to the elected species and further to the extent necessary to determine patentability. If the Markush-type claim is not allowable \*\*, the provisional election will be given effect and examination will be limited to the Markush-type claim and claims to the elected species, with claims drawn to species patentably distinct from the elected species held withdrawn from further consideration.” (MPEP 803.02)

Pursuant to MPEP 803.02, any required election among the elements of a Markush claim should be a species election.

It is understood that in a species election, if any species is found to be allowable, that an additional species will be examined, until all species have been examined. i.e., all SGR genes or all SGR polypeptides. If any generic claim is finally held to be allowable, all claims drawn to species containing all elements of the generic claim will also generally be held to be allowable. (MPEP § 806.04(d)). Accordingly, nonelected, withdrawn species SEQ ID NOs: 2-21 and 28 and 31-50 and 57 remain recited in claims 1 and 4 of the application. Applicants respectfully request that upon indication of allowability of SEQ ID NOs: 1 and 30, additional species be rejoined and examined.

Furthermore, applicants respectfully reiterate the request that when the product claims 1, 4 and 6-8 are subsequently found allowable, any withdrawn method of using the subject of claims of 1, 4 and 6-8, as recited in Groups III (claims 9-16), IV (claims 17-30) and V (claims 31-35) would be properly rejoined for examination.

### **C. Rejection Under 35 U.S.C. §112, first paragraph – written description**

In the Final Office Action mailed October 26, 2010, the examiner rejected claims 1, 4 and 6-8 under 35 U.S.C. §112 as containing new matter, stating that “the specification only supports SEQ ID NOs: 30-50 and 57...” In response, applicants respectfully direct the examiner’s attention to Section I above, where claim 1 has been amended to recite “...SEQ ID NOs: 30 to 50 and 57...”

As amended, the claims recite SEQ ID NOs supported by the specification, as acknowledged by the examiner. As such, claim 1 and claims 4 and 6-8, dependent therefrom, do not contain new matter. Withdrawal of the rejection is respectfully requested.

**D. Rejection Under 35 U.S.C. §102**

In the Final Office Action mailed October 26, 2010, the examiner rejected claims 1, 4 and 6-8 under 35 U.S.C. §102 as anticipated by Yamada, K. *et al.* GenBank GI:17380888; 18 September 2002 in light of Ren *et al.* Plant Physiology 2007 Jul; 144(3):1429-41.

In the rejection, the examiner stated that “[a]mending the claims to recite ‘the amino acid’ instead of ‘an amino acid’ would obviate this rejection.” (Final Office Action, p. 4.) In accordance with the examiner’s suggestion, claim 1 has been amended, as set forth above in Section I, to recite “the amino acid.” As such the rejection is obviated. Withdrawal of the rejection is therefore respectfully requested.

**CONCLUSION**

Based on the foregoing, all of applicants’ pending claims 1, 4 and 6-8 are patentably distinguished over the art, and in form and condition for allowance. The examiner is requested to favorably consider the foregoing and to responsively issue a Notice of Allowance.

The time for responding to the October 26, 2010 Office Action without extension was set at three months, or January 26, 2011. Applicants hereby request a one month extension of time under 37 CFR § 1.136 to extend the deadline for response to February 26, 2011. Payment of the extension fee of \$65.00 specified in 37 C.F.R. § 1.17(a)(1) and the RCE fee of \$405.00 specified in 37 C.F.R. § 1.17(e), as applicable to small entity, is being made by on-line credit card authorization at the time of EFS submission of this Response. Should any additional fees be required or an overpayment of fees made, please debit or credit our Deposit Account No. 08-3284, as necessary.

If any issues require further resolution, the examiner is requested to contact the undersigned attorneys at (919) 419-9350 to discuss same.

Respectfully submitted,

/steven j. hultquist/  
Steven J. Hultquist  
Reg. No. 28,021  
Attorney for Applicants

/kelly k. reynolds/  
Kelly K. Reynolds  
Reg. No. 51,154  
Attorney for Applicants

HULTQUIST IP  
P.O. Box 14329  
Research Triangle Park, NC 27709  
Phone: (919) 419-9350  
Fax: (919) 419-9354  
Attorney File No.: 4240-145

<p><b>The USPTO is hereby authorized to charge any deficiency or credit any overpayment of fees properly payable for this document to Deposit Account No. 08-3284</b></p>
---